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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,641	02/01/2001	Noriyuki Tanimoto	P63215US1	8750

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EXAMINER	
BEX, PATRICIA K	

ART UNIT	PAPER NUMBER
1743	9

DATE MAILED: 04/30/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/774,641	TANIMOTO ET AL.	
	Examin r	Art Unit	
	P. Kathryn Bex	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2003* .

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-13* is/are pending in the application.

4a) Of the above claim(s) *14-19* is/are withdrawn from consideration.

5)☒ Claim(s) *5-13* is/are allowed.

6)☒ Claim(s) *2-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The addition of claims 14-19 is acknowledged and has been entered into the record.

Election/Restrictions

2. Newly submitted claims 14-19 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

I. Claims 2-13, drawn to a pretreatment method of a sample containing organics, classified in class 436, subclass 160.

II. Claims 14-19, drawn to an apparatus for pretreatment of a sample containing organics, classified in class 422, subclass 78.

3. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process, e.g. a process for determining traces of mercury in liquids.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 14-19 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson (USP 3,776,695).

Peterson an appliance for containing organic components during heat decomposition, the appliance comprising a heating section in the form of a tube 7', 24'. The tube is open at only one of two opposing ends since a stop-cock 3' can seal one end. The tube assembly is made of quartz, which withstands corrosive gases, oxidative corrosion, and heating to a temperature of at least 600 degrees C. The appliance further comprising an introducing section 1' that cooperates with the open end of the tube to seal the open end, and is capable of introducing sample through the introducing section into the heating tube when closed by stopcock (column 5, lines 22-26), the heating of the appliance being effected only by external means 16' (Fig. 1). The method includes the steps of filling up the tube with oxygen from nozzle 6' and closing the appliance. The tube is heated to combust the organics, and an absorbing solution is sprayed from a

discharge conduit ,10, 21' into the appliance, wherein the absorption solution is then sent to a measuring system.

Peterson discloses the claimed invention except for the tube being axially aligned horizontally and specific the length of the appliance being 10 cm. However, the use of a tube being axially aligned horizontally in a horizontal heating means is considered convention in the art as admitted by Applicants on page 4, lines 4-7, page 6, 1st full paragraph. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a horizontal heating means, so that the sample gas does not rise rapidly out of the top furnace by convection. Similarly it would have been obvious to have made the length of the appliance 10 cm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claims 2-4 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (JP 9-274030).

Ono teaches an appliance for containing organic components during heat decomposition, the appliance comprising an upper heating section 2 in the form of a tube 1 and a lower collection section 6. The tube is open at only one of two opposing ends since valves 28, 37, can seal the lower end. The tube assembly is made of quartz, which withstands corrosive gases, oxidative corrosion, and heating to a temperature of at least 600 degrees C. The appliance further comprising an introducing section 14 that cooperates with the open end of the tube to seal the open end, and is capable of introducing sample through the introducing section into the heating tube when closed by cap 24 (Fig. 7), the heating of the appliance being effected only by

external means 26 (Fig. 1). The method includes the steps of filling up the tube with oxygen from nozzle 7 and closing the appliance. The tube is heated to combust the organics, and after cooling an absorbing solution is sprayed from a discharge conduit 9 under pressure into the appliance, wherein the absorption solution is then sent to a measuring system.

Ono discloses the claimed invention except for specific the length of the appliance being 10 cm and the amount of oxygen gas used to fill up the appliance which is not less than 2.5 times the amount of oxygen gas required for complete combustion of the sample. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to made the length of the appliance 10 cm, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Similarly, with respect to the specific amount of oxygen required for complete combustion depends upon the amount of sample and the use of excess oxygen insures complete combustion. Moreover, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

8. Applicant's arguments with respect to claims 2-4 have been considered but are not persuasive. Applicant argues that the instant application does not require a combustion assistant. Applicant is reminded that the transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim. The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-

ended and does not exclude additional, unrecited elements or method steps. See, e.g., Genentech, Inc. v. Chiron Corp., 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997). "Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim. Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80USPQ 448, 450 (Bd. App. 1948). The term "comprising" leaves the claim open for the inclusion of unspecified ingredients even in major amounts, e.g. combustion assistant.

Allowable Subject Matter

9. Claims 5-13 are allowable.

10. The following is a statement of reasons for the indication of allowable subject matter: the instant invention is drawn to a device and method for heat-decomposing a sample containing organics. The method includes filling up the appliance with oxygen, closing the appliance, then decomposing the organics and lastly introducing an absorbing liquid into the appliance. The device includes an appliance-installing section, a heating means and a moving means. While numerous sample autoloaders for use with an analytical combustion furnace exist, none of the prior art teach or suggest a step which include filling up the appliance with oxygen and introducing an absorbing liquid into the tube of such autoloaders.

Conclusion

11. Claims 2-4 are rejected. Claims 5-13 are allowed. Claims 14-19 are withdrawn.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Bex whose telephone number is (703) 306-5697. The examiner can normally be reached on Mondays-Thursdays, alternate Fridays from 6:00 am to 3:30 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 308-4037.

The fax number for the organization where this application or proceeding is assigned is (703) 872-9310 for official papers prior to mailing of a Final Office Action. For after-Final Office Actions use (703) 872-9311. For unofficial or draft papers use fax number (703) 305-7719. Please label all faxes as official or unofficial. The above fax numbers will allow the paper to be forwarded to the examiner in a timely manner.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Kathryn Bex

P. Kathryn Bex
Patent Examiner
AU 1743
April 25, 2003

Jill Warden
Supervisory Patent Examiner
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